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Applicants' invention requires data recording media that includes a plurality of extended format sectors. Each extended format sector includes two fields: 1) a user data sector field for storing user data and 2) a backup indicator field for indicating the status of the user data sector field.

Applicants' invention provides an effective way of knowing which sectors have been updated by reference to a backup indicator field disposed within the extended sector with the user data. The backup indicator field is used to indicate whether user data in that user data sector field has been written to backup storage subsequent to a previous backup operation. Thus, Applicants' invention provides an effective way of knowing whether a sectors has been updated by the host in order to perform an incremental backup on subsequent passes merely by reference to the backup indicator field in the extended sector that includes that sector of data and without reference to a separate log of metadata kept by the host or the controller.

In contrast, Miller provides a storage system that includes a storage controller 108, storage units 114, and metadata 116. The metadata 116 provides information concerning data stored on the storage units 114. According to Miller, changes to the primary data on storage units 114 received by the system after creating backup data on storage units 114 are indicated by the metadata 116.

Miller is therefore different from Applicants' invention is several regards. Miller's metadata is not stored on the actual storage units 114. Therefore, Miller cannot include metadata indicating whether a sector has been backed-up at each sector of data. Therefore, Miller's invention requires the controller 108 to process pointers 122 from the metadata 116 along with tables and other metadata to determine whether data has

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been updated and to determine the location of the data that was backed-up and the location of the backed-up data.

Further, Miller does even mention extended formatting as illustrated with reference to Fig. 5 in Applicants' specification. Miller is completely silent with reference to how data is recorded on storage units 114. Miller does not even suggest providing a physical disk format larger than the host data format.

Moreover, Miller fails to suggest providing recording media with extended format sectors that includes a user data sector field for storing user data and a backup indicator field for indicating the status of the user data sector field as recited in Applicants' independent claims 1, 6, 11 and 20.

Therefore, in view of the above remarks, Applicants' independent claims 1, 6, 11 and 20 are patentable over Miller.

Because claims 2-5, 7-10, 12-19 and 21-22 depend from independent claims 1, 6, 11 and 20, respectively, include the features recited in the independent claims as well as additional features, Applicants respectfully submit that claims 2-5, 7-10, 12-19 and 21-22 are also patentably distinct over the cited reference. Nevertheless, Applicants are not conceding the correctness of the Examiner's rejection with respect to such dependent claims and reserves the right to make additional arguments if necessary.

On the basis of the above amendments and remarks, it is respectfully submitted that the claims are in immediate condition for allowance. Accordingly, reconsideration of this application and its allowance are requested.
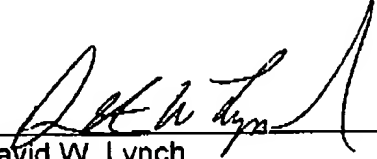
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If a telephone conference would be helpful in resolving any issues concerning

this communication, please contact Applicant's attorney of record, David W. Lynch at

651-686-6633 Ext 116.

Respectfully submitted,

Crawford Maunu, PLLC

Date: _5/27/03_   By: _____
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